**Use the information above to complete the Lesson One: Layers of the Earth sheet.**

**Facts about the Crust (Lithosphere):**

* Definition: The outer part of Earth, consisting of the crust and upper mantle.
* **Outermost** surface is called the crust – **oceanic crust and continental crust**.
* The crust is typically about **25 miles thick** beneath **continents**, and about **6.5 miles thick** beneath **oceans**.
* The crust is relatively **light and brittle** (think of a graham cracker).
* Most **earthquakes** occur within the crust.
* All **life** in the universe that we know of occurs there.
* The crust is the **coldest** layer of all the layers of Earth.
* The crust makes up less than 1% of the Earth's mass.
* The crust is composed of solid, brittle, **igneous, metamorphic, and sedimentary rock.**
* Oceanic crust has a density of 3 g/c3 (grams per centimeters cubed)
* Continental crust averages 2.7 g/c3.
* **Oceanic crust is mainly basalt** and **continental crust is more like granite**. **Basalt is more dense (more mass) than granite.**
* The temperature of Earth's crust can range from -70 degrees Fahrenheit to +750 degrees Fahrenheit depending on location and depth. Higher temperatures would be recorded in regions of crustal melting from magmatic intrusions. Technically, regions heated by magmatic intrusions are still crustal rock, and could reach well over 1,000 degrees Fahrenheit.

**Facts about the Middle Mantle (Asthenosphere):**

* **Definition**: The middle mantle that has a high viscosity (thickness). Contains molten rock called magma.
* The mantle is the **thickest layer** of the earth.
* The **middle mantle** is called the **Asthenosphere**. The upper mantle is more rigid and less dense (less mass). The **Asthenosphere is more dense (has more mass).**
* It is **6 miles below the oceanic crust** and **19 miles below the continental crust**
* Makes up 80% of Earth’s volume, and It takes up 67% of the Earth's mass.
* **1700 miles thick**
* **Temperature** ranges from **2,000-3,000 Fahrenheit**
* Is made of mainly oxygen (O) and silicon (Si).